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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,455	02/25/2002	Alfred Wade Muldoon		4357

7590 05/28/2003  
Alfred Wade Muldoon  
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EXAMINER

POLK, SHARON A

ART UNIT PAPER NUMBER

2836

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/082,455

Applicant(s)

MULDOON, ALFRED WADE

Examiner

Sharon Polk

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 1-20 are objected to because of the following informalities: the independent claims recite "the ac source" without first claiming an ac source. Therefore, there is a lack of antecedent basis. Similarly, claims 5, 10, 15, and 20 recite "the operator" without first claiming an operator. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-3, 6-9, and 11-13, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hummel, US 4,594,515.**

With regard to claim 1, Hummel teaches an electronic control (figs. 1a, 1b) with a power supply (e.g., AC in, 2, 4) that isolates the control voltages from the ac source (8), said control having a plurality of connections between digital nodes and ac nodes, said connections being made through passive components (38, 40, 64, 66, 68), the subsequent signals on digital nodes being compared to determine the state of one or more ac paths (e.g., abstract, 3:55-63, 4: 11-30).

With regard to claim 2, 7, 12, and 17, Hummel teaches the state of the ac paths indicates whether a switching device is open or closed (e.g., abstract, 3:55-63, 4: 11-30).

With regard to claim 3, 8, 13, and 18, Hummel teaches the state of the ac paths indicates whether a functional load is present (e.g., 58, 109, 108).

With regard to claims 6 and 16, the claimed passive components (38, 40, 64, 66, 68) are also non-reactive.

With regard to claim 11, Hummel teaches an appliance electronic control (abstract).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 4, 9, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hummel, in view of Szynal et al., US 5,202,582.**

With regard to the above claims, Hummel teaches an electronic control but lacks the claimed "zero crossing determination." However, this feature is taught by Szynal et al., (e.g., abstract, 3: 59-64). One skilled in the art at the time of the invention would have been motivated to modify Hummel's electronic control with the claimed "zero crossing determination" as taught by Szynal et al. for the purpose of significantly

simplifying the control circuit by using fewer components, is lower in cost and is less subject to failure than prior art appliance controls (2:31-36).

**Claims 5, 10, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hummel.**

With regard to the above claims, Hummel implicitly teaches a passive current limiting device (10) by teaching a surge suppressor. One skilled in the art would be motivated to use a device that limits/blocks current for the purpose of preventing damage to equipment, and preventing shock hazards.

***Pertinent Prior Art***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Nos. 3,862,439, 4,305,122, 4,329,596, 4,866,955, 5,184,026, 5,694,793, and 5,735,007 disclose similar aspects of the claimed invention.

***Information Disclosure Statement***

5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Communication with the PTO***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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May 13, 2003

Sharon Polk

Patent Examiner – Art Unit 2836



BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
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